

REMARKS

Favorable reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks are respectfully requested.

Applicants first thank Examiners Tamra Dicus and Cynthia Kelly for the courtesies they extended during the telephone interview conducted on May 5, 2004 with Applicants' representative. During this interview, some specific agreements regarding the claims were reached, as discussed in more detail below.

Claims 1-32 remain in this application, including independent claims 1, 16, 22, 30, and 31. Claims 1, 4, 7, 11-20, 22-27, and 30-32 have been amended in this paper. Independent claim 1, for instance, is directed to a heat transfer material comprising: a substrate layer; a release coating layer; a peelable film layer overlying the release coating layer; and a discontinuous polymer layer having an opacifying material, where the discontinuous polymer layer overlies the peelable film layer.

In the Final Office Action, claims 1-32 were provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 1-8 and 17-28 of copending Application Serial No. 10/003,697. All the pending claims in the present application require the presence of at least one discontinuous layer that overlies the peelable film layer in the heat transfer material, whereas all the pending claims in the 10/003,697 application require the presence of a crosslinked layer that overlies the peelable film layer in the heat transfer material. As discussed during the telephone interview, a discontinuous layer is not necessarily the same as a crosslinked layer, and Examiners Dicus and Kelly stated during the interview that this provisional double patenting rejection would be withdrawn.

At page 5, the Final Office Action specifically acknowledged that claims 19-20, 27, and 31-32, which include independent claim 31, were only being rejected in light of the provisional double patenting rejection based on the 10/003,697 application. Thus, Applicants respectfully submit that in view of the Examiners' withdrawal of the provisional double patenting rejection, claims 19-20, 27, and 31-32 are allowable.

Additionally, claims 1-3, 5-18, 21-26, and 28-30, which include independent claims 1, 16, 22, and 30, were rejected under 35 U.S.C. § 102(e) as being anticipated

by U.S. Patent No. 6,232,267 to Oshima, et al. Oshima, et al. is directed to a thermal transfer sheet comprising a substrate sheet, a dye layer of at least one color, a white layer to be laid over an image-receiving portion of a transfer receiving material after an image is formed therein, and a transferable receptor layer, which may be transferred to a transfer-receiving material prior to image formation. (Col. 2, line 31 – col. 3, line 38). The dye layer, the white layer, and the transferable receptor layer may be alternately disposed side by side on the substrate sheet. (Col. 3, lines 24-38).

As shown in Figure 1 of Oshima, et al., for example, thermal transfer sheet 1 may include a receptor layer-transferring portion 11, a dye layer-transferring portion 12, and a white layer-transferring portion 13. These portions 11, 12, and 13 are positioned side-by-side on a substrate sheet 2. The receptor layer-transferring portion 11 includes a release layer 7, a receptor layer 8, and an adhesive layer 9. The dye layer-transferring portion 12 includes side-by-side dye layers 4Y, 4M, and 4C, which correspond to a yellow dye layer, a magenta dye layer, and a cyan dye layer, respectively. Finally, the white layer-transferring portion 13 includes a peeling layer 5 and a white layer 6. (Col. 3, line 66 – col. 4, line 18).

To the contrary, Applicants' independent claims 1, 16, 22, and 30 all recite a heat transfer material that comprises (i) a substrate layer, (ii) a release coating layer, (iii) a peelable film layer overlying the release coating layer, and (iv) a discontinuous polymer layer and/or a discontinuous printable layer overlying the peelable film layer. For example, as described at pages 6-7 of Applicants' specification and as shown in Figures 1-3, layers 18, 28/29, and 39 (that overlie the peelable film layers 16, 26, and 36) are all *discontinuous*. The "discontinuous" nature of the layer(s) overlying the peelable film layer in Applicants' claimed heat transfer materials leads to improved heat transfer materials that may, for example, produce images on a fabric that are longer lasting, while the fabric's porosity, breathability, stretchability, and feel are maintained. (See, e.g., Appl., p. 4, ¶ 9; p. 6, ¶¶ 19-20; p. 13, ¶ 38; and p. 16, ¶ 46).

Nowhere does Oshima, et al. disclose a construction for a heat transfer material that comprises (i) a substrate layer, (ii) a release coating layer, (iii) a peelable film layer overlying the release coating layer, and (iv) a discontinuous polymer layer and/or a

discontinuous printable layer overlying the peelable film layer. For instance, as stated, the receptor layer-transferring portion 11 of Oshima, et al.'s thermal transfer sheet includes an adhesive layer 9, a receptor layer 8, a release layer 7, and a substrate sheet 2. However, even if the release layer 7 and the receptor layer 8 were somehow construed to constitute Applicants' claimed "release coating layer" and "peelable film layer," respectively, the adhesive layer 9 of Oshima, et al. is *not* a "discontinuous" polymer layer or a "discontinuous" printable layer. Again, as illustrated in Figures 1-3 of the present application, the discontinuous polymer layer and/or the discontinuous printable layer are *discontinuous* in relation to the peelable film layer, while adhesive layer 9 of Oshima, et al. is *not* such a *discontinuous* layer in relation to receptor layer 8.

Moreover, the purpose of the adhesive layer 9 of Oshima, et al. is entirely different than the purpose of Applicants' claimed discontinuous polymer layer or discontinuous printable layer. Namely, in Oshima, et al., adhesive layer 9 is used to improve the adhesion of receptor layer 8 to transfer receiving material 15, and adhesive layer 9 is not "exposed" when printed product 14 is formed. (Col. 12, lines 41-57; col. 4, lines 19-29 and Fig. 2). On the other hand, Applicants' claimed discontinuous polymer layer and/or discontinuous printable layer may be "exposed," for example, when the peelable film layer of the claimed heat transfer material is contacted with a fabric for bonding an image to the fabric, and the "discontinuous" nature of the discontinuous polymer and/or discontinuous printable layer(s) that overlie the peelable film layer leads to improved heat transfer materials that produce images on a fabric that are longer lasting, while the fabric's porosity, breathability, stretchability, and feel are maintained.

Accordingly, for at least the reasons set forth above, Applicants respectfully submit that independent claims 1, 16, 22, and 30 patentably define over Oshima, et al. Examiners Dicus and Kelly confirmed during the May 5, 2004 telephone interview that they would withdraw the rejection of independent claims 1, 16, 22, and 30 under 35 U.S.C. § 102 based on the differences discussed above between the heat transfer material of Applicants' claims and Oshima, et al.

Dependent claims 2-15, 17-18, 21, 23-26, and 28-29 were rejected under 35 U.S.C. § 102(e) or under 35 U.S.C. § 103(a) as being unpatentable over Oshima, et al.,

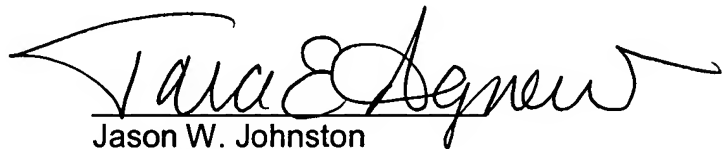
either alone or in combination with U.S. Patent No. 5,508,105 to Orenstein, et al. Applicants respectfully submit, however, that at least for the reasons indicated above relating to independent claims 1, 16, 22, and 30, dependent claims 2-15, 17-18, 21, 23-26, and 28-29 patentably define over the references cited in the Final Office Action. However, Applicants also note that the patentability of dependent claims 2-15, 17-18, 21, 23-26, and 28-29 does not necessarily hinge on the patentability of independent claims 1, 16, 22, and 30. In particular, it is believed that some or all of dependent claims 2-15, 17-18, 21, 23-26, and 28-29 may possess features that are independently patentable, regardless of the patentability of claims 1, 16, 22, and 30.

It is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Should any issues remain after consideration of this Amendment, Examiner Dicus is invited and encouraged to telephone the undersigned. Otherwise, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully submitted,

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Date: May 21, 2004